

**SARCOSTEMMA CLAUSUM, SERIES CLAUSA (ASCLEPIADACEAE),
NEW TO TEXAS**

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ABSTRACT

Sarcostemma clausum (Jacq.) Roemer & Schultes, subgenus *Ceramanthus*, series *Clausa* (Asclepiadaceae) previously unreported in Texas has been found in Hidalgo County. A key is provided for the Texas species of *Sarcostemma*.

KEY WORDS: *Sarcostemma*, *Sarcostemma clausum*, subgenus *Ceramanthus*, series *Clausa*, Asclepiadaceae, Texas

Sarcostemma clausum (Jacq.) Roemer & Schultes, subgenus *Ceramanthus* Kunze, series *Clausa* Holm (Asclepiadaceae) was first described by Jacquin (1763) as *Cynanchum clausum*. Roemer & Schultes (1820) moved it to *Sarcostemma*. *Sarcostemma clausum* is a southern species, reported from southern Florida, México (including Baja California Sur), Central America, South America, and the Caribbean Islands (Holm 1950). Members of this genus are twining or trailing vines which climb by turning to the right. They have milky sap; conspicuous flowers with a 5 lobed calyx, corolla rotate to almost campanulate, 5 lobed, and 5 filaments forming a column. The fruits are follicles, fusiform or obclavate in shape.

Cory & Parks (1937), Holm (1950), Correll & Johnston (1970), Gould (1975), nor Hatch *et al.* (1990) listed *Sarcostemma clausum* as occurring in Texas. Based on previously mapped distributions (Holm 1950), it appears that *S. clausum* has had a natural migration up the eastern coastline of México from the state of Tamaulipas to its present location in Hidalgo Co., Texas. There are now four (4) species of *Sarcostemma* with five (5) taxa represented in Texas.

The following key, modified from Correll & Johnston (1970), will differentiate the *Sarcostemma* found in Texas.

KEY TO TEXAS *SARCOSTEMMA*

1. Peduncles as thick as, or thicker than the adjacent internode.
 *Sarcostemma clausum* (Jacq.) Roemer & Schultes
- 1' Peduncles thinner than the adjacent internode.
 2. Margins of leaves crisped, occasionally purple tinged, sepals mostly greater than 3 times as long as wide. *S. crispum* Benth.
 - 2' Margins of leaves not crisped, green, sepals mostly less than 3 times as long as wide.
 3. Sepals 4-6 mm long, pubescent on both surfaces.
 *S. torreyi* (A. Gray) Woodson
 - 3' Sepals 2-3 mm long, pubescent on back side (dorsal) only.
 4. Blades cordate at base, mostly less than 3 times as long as wide. *S. cynanchoides* Dcne. var. *cynanchoides*
 - 4' Blades hastate to rounded cuneate at base, greater than 3 times as long as wide.
 *S. cynanchoides* var. *hartwegii* (Vail) Shinnery

Specimen collected: UNITED STATES. Texas: Hidalgo Co., west side of the westernmost resaca in Bentsen-Rio Grande Valley State Park, south of Mission, 27 Dec 1988, *S. & G. Jones 2229* (TAES). It was frequent, climbing on *Celtis* along the wooded resaca adjacent to an open fallow field. Associated genera: *Celtis*, *Salix*, *Pennisetum*, and *Phragmites*. The soils are of the Rio Grande-Matamoros association (RT) and are deep, moderately and slowly permeable, loamy soils of floodplains and low terraces. More specifically they are typically light brownish gray or grayish brown silt loam or have a silty clay surface layer. The geology of the site is of Alluvium formation (Qos) (Recent).

During follow up trips in December 1989 and 1990, vines of *Sarcostemma clausum* were found, but in neither year did we find it in flower.

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LITERATURE CITED

- Correll, D.S. & M.C. Johnston. 1970. *Manual of the Vascular Plants of Texas*. Texas Research Foundation, Renner, Texas.
- Cory, V.L. & H.B. Parks. 1937. *Catalogue of the Flora of Texas*. Tex. Agric. Exp. Sta. Bull. 550.
- Gould, F.W. 1975. *Texas Plants—A Checklist and Ecological Summary*. Tex. Agric. Exp. Sta. Bull. MP-585.
- Hatch, S.L., K.N. Gandhi, & L.E. Brown. 1990. *Checklist of the Vascular Plants of Texas*. Tex. Agric. Exp. Stat. Bull. MP-1655.
- Holm, R.W. 1950. American species of *Sarcostemma*. Ann. Missouri Bot. Gard. 37:480-590.
- Jacquin, N.J. 1763. *Selectarum Stirpium Americanarum Historia*. 1:87, t. 60. Facsimile ed. (1971): Hafner Publishing Co., Inc., New York, New York.
- Roemer, J.J. & J.A. Schultes. 1820. *Systema Vegetabilium*. 6:116.